

WHAT IS CLAIMED IS:

1. A video game apparatus for generating, and supplying to a display, an image signal for displaying a player object existing on a land object in a virtual three dimensional space by processing image data for the player object and the land object according to a program, said video game apparatus comprising:
 - a player object image data generating means for generating player object image data to display a player object; and
 - a land object image data generating means for generating land object image data to display a land object; wherein
- 10 said land object image data includes a program control code;
 said video game apparatus further comprising a program control code detecting means to detect said program control code in relation to a position of the player object, and an image changing means to cause the image signal to change depending upon the program control code detected.
- 15 2. A video game apparatus according to claim 1, wherein said program control code includes an action code to control an action of said player object, said image changing means including animation data output means to output animation data to automatically cause said player object to make an action in accordance with the action code.
- 20 3. A video game apparatus according to claim 2, wherein when the land object is a hollow or hole and the action code is "jump", said animation data output means outputting animation data to cause the player object to make an action of jumping over said hollow or hole.
- 25 4. A video game apparatus according to claim 3, wherein said video game apparatus has a controller, in association therewith, including a direction instructing

means to instruct a moving direction of said player object so that the player object is moved in the moving direction, said video game apparatus further comprising;

a moving speed detecting means for detecting a moving speed of the player object, and

5 a jump distance calculating means for calculating a jump distance of the player object based on the moving speed,

said animation data output means outputting animation data to cause the player object to make an action of jump according to the jump distance.

10 5. A video game apparatus according to claim 2, wherein when the land object is a wall surface and the action code is "climb", said animation data output means outputs such animation data that the player object makes an action of climbing said wall surface.

6. A video game apparatus according to claim 5, wherein when the action code is not "climb", a wall surface height calculating means is further comprised to calculate a height of said wall surface,

15 said animation data output means outputting such animation data that the player object makes an optimal action in accordance with the height of said wall surface.

20 7. A video game apparatus according to claim 1, wherein the program control code includes a camera control code, said image changing means including a camera control means to control a virtual camera provided in said three dimensional virtual space.

25 8. A video game apparatus according to claim 7, wherein said virtual camera includes a plurality of virtual cameras, the camera control code including a camera switching code, and said camera control means including a camera switching means to switch between said plurality of virtual cameras depending upon the camera switching code.

9. A video game apparatus according to claim 1, wherein the program control code includes a sound code, further comprising

a sound data generating means to generate sound data, and

5 a sound control means to control sound to be outputted from said sound data generating means depending upon the sound code.

10. A video game according to claim 9, wherein said sound data generating means can generate sound data for a plurality of ones of sound, the sound code including a sound switching code and said sound control means including a sound switching means to switch the sound data depending upon the sound switching code.

10 11. A video game apparatus for generating, and supplying to a display, an image signal to display a player object existing on a land object in a virtual three dimensional space by processing image data for the player object and land object according to a program, and further supplying a sound signal to a sound output means by processing sound data according to a program, said video game apparatus comprising:

15 a player object image data generating means for generating player object image data to display a player object; and

a land object image data generating means for generating land object image data to display a land object; wherein

said land object image data includes a program control code;

20 said video game apparatus further comprising a program control code detecting means to detect the program control code in relation to a position of the player object, and a sound changing means to cause the sound signal to change according to the program control code detected.

25 12. A memory medium applicable to a video game apparatus for generating, and supplying to a display, an image signal to display a player object existing on a land object

in a virtual three dimensional space by processing image data for the player object and the land object according to a program, and memorized with a program to be processed by an information processing means included in said video game apparatus, said memory medium comprising:

5 a player object image data generating program to generate player object image data for displaying a player object; and

 a land object image data generating program for generating land object image data to display a land object; wherein

 said land object image data includes a program control code; and further
10 comprising

 a program control code detecting program for detecting the program control code in relation to a position of the player object, and an image changing program for causing said image signal to change depending upon the program control code detected.

13. A memory medium according to claim 12, wherein the program control code
15 includes an action code to control an action of the player object, the image changing program including animation data output program for outputting animation data to automatically cause said player object to make an action depending upon the action code.

14. A memory medium according to claim 13, wherein the land object image data
20 generating program generates a land object of a hollow or hole and an action code of "jump", said animation data input program outputting animation data to cause said player object to make an action of jumping over the hollow or hole.

15. A memory medium according to claim 14, wherein said video game apparatus
25 has a controller, in association therewith, including a direction instructing means to instruct a moving direction of the player object so that the player object is moved in the moving direction, said memory medium further comprising

a moving speed detecting program to detect a moving speed of the player object,
and

a jump distance calculating program to calculate a jump distance of the player
object based on the moving speed, and

5 said animation data output program outputting animation data to cause the player
object to make an action of jump according to the jump distance.

16. A memory medium according to claim 13, wherein the land object image data
generating program generates a land object of a wall surface and an action code of
“climb”, and said animation data output program outputting such animation data that said
10 player object makes an action of climbing said wall surface.

17. A memory medium according to claim 16, wherein when the action code is
not “climb”, a wall surface height calculating program is further comprised to calculate
the wall surface height,

the animation data output program outputting such animation data that the player
15 object makes an optimal action depending upon the wall height.

18. A memory medium according to claim 12, wherein the land object image data
generating means generates land object image data including a camera control code, and
the image changing program including camera control program to control a virtual
camera provided in the three dimensional virtual space.

20 19. A memory medium according to claim 18, wherein said virtual camera
includes a plurality of virtual cameras, the camera control code including a camera
switching code, and the camera control program including a camera switching program to
switch between said plurality of virtual cameras.

20. A memory medium according to claim 12, wherein said land object image
25 data generating means generates a land object including a sound code of a program

control code, further comprising

a sound data generating program to generate sound data, and

a sound control program to control sound to be outputted from said sound data generating means depending upon the sound code.

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21. A memory medium according to claim 20, wherein the sound data generating program can generate sound data of a plurality of ones of sound, the sound code including the sound switching code, and the sound control program including a sound switching program to switch the sound data depending upon the sound switching code.